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- (71) Applicant (for all designated States except US): **THE CURATORS OF THE UNIVERSITY OF MISSOURI** [US/US]; 615 Locust Street Building, 3rd floor, Columbia, MO 65211 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **QUINN, Thomas, P.** [US/US]; 5700 Sinclair Road, Columbia, MO 65203 (US). **KARASSEVA, Natalia G.** [RU/US]; 407 Parkade, Columbia, MO 65202 (US).
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(54) Title: ErbB-2 RECEPTOR TARGETING PEPTIDE

(57) Abstract: The ErbB-2 receptor, a member of the tyrosine kinase type 1 family of receptors, has been implicated in many human malignancies. Bacteriophage display technology was employed to identify peptides that bound to the extracellular domain of human ErbB-2. The peptide KCCYSL, most frequently occurring in the affinity selected population, was chemically synthesized and characterized for its binding activities to the recombinant extracellular domain of ErbB-2. The synthetic peptide exhibits high specificity to ErbB-2 as well as to ErbB-1, another member of ErbB-family. Thus, this peptide can be employed in cancer imaging or therapeutic agent targeting to malignant cells ErbB-2 receptor.